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Build in Eco Agroindustry Park Based on Environmental Management System to Indonesia Welfare

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Abstract
The purpose of this study to know: 1) the influence of the corporate commitment, corporate orientation, corporate culture and cost implementation in the environmental management system toward the agro industry corporate performance; 2) the role of proactive environmental management in influencing of the corporate commitment, corporate orientation, corporate culture and cost implementation toward industry corporate performance.Type of survey research conducted on the management of agro industrial corporate. Study sample totaled 130 respondents using stratified proportional random sampling. Methods for collecting data using questionnaires and data analysis techniques using path analysis.The results of this study indicate that: 1) the influencing of corporate commitment, corporate orientation, corporate culture and cost implementation toward the agro industry corporate performance, 2) Implementation of environmental management systems can be used as an active tool to promote a comprehensive organizational change towards sustainable development and value creation in an effort to improve the agro industry corporate performance, in addition to the proactive management of the environment if it is not offset by the improvement of the behavior of each employee to further raise awareness of the environment to a high cause the performance of the agro industry corporate performance will not deliver.
Keywords: environmental management system, proactive environmental management, agro industry corporate performance

1. Introduction

Indonesia Welfare is the dream of every youth of the nation to achieve a better quality of life. To achieve this dream, the agricultural sector can become the foundation of the majority of Indonesian society, though the agricultural sector has yet to be able to contribute optimally to the Indonesian people wide. Case until this happens is still high dependence on imported agricultural sector and more broadly concerned many final products are actually imported raw materials from Indonesia.

This condition is obviously concerned because Indonesia as an agricultural country that most of the people rely on agriculture as a livelihood. In principle there is nothing agricultural products can not be used when it is done with the use of technological innovation and to the maximum so that expected to create value added of agricultural products and do not damage the environment (zero waste). Indonesia to realize that building a prosperous agro eco park-based environmental management system has become imperative to immediately apply in every area even at the village level.

Agro industrial sector not only provides agricultural income actors from upstream to downstream, but can absorb labor in significant number, increase foreign exchange earnings through increased agricultural exports and encourage the emergence of new industries. Therefore the agro-industry sector has a strategic role not only for the distribution of development, economic growth and national stability, but it plays an important role in protecting and preserving the environment.

The issue of the environmental crisis and the depletion of natural resources has escalated in the past two decades. Many companies have not been willing to implement environmental protection into the production process because they will increase the cost of production, which in turn reduces profits, while on the other hand the progress of science and technology has been growing awareness of the environment is clean and healthy. Orientation of business activities only to maximize profit to satisfy the owner of the company, as a result people have to bear the negative impact of our business activities (social cost). Public pressure on companies that have a low awareness of the environment will increase and the government will impose increasingly stringent environmental regulations with severe penalties for violators. Companies need to respond in planned, integrated and explicitly set environmental targets that match the strength and long-term business strategy.

Environmental issues have important implications for the growing company and other organizations, depending on how the reaction of the company. Turns its attention to the environment can have a positive and negative effect on the company's broad enough in achieving its goals and objectives. Environmental risks thrusting as much opportunity. Companies that understand this, gradually has at least two main reasons, namely to conserve and expand the market or accessing new markets. Other reasons that reduce the social disruption that comes from the existence of the industry itself, for example, reduces noise, water pollution, air pollution, congestion, and social responsibility. In this case the social responsibility that the company should return the profit to the community (taxes) and contributing to society for example through helping the government in creating an ecological city, green city as well as participate in various activities to increase environmental awareness and environmental education activities such as green campus and a variety of activities in celebrate independence day with the theme of the environment.

The purpose of this study to know: the effect of the corporate commitment, corporate orientation, corporate culture and implementation of costs in the implementation of environmental management systems toward agro industry corporate performance and the role of proactive environmental management in influencing the corporate commitment, company orientation, corporate culture and implementation of costs toward agro industry corporate performance.

2. Literature Review

2.1 Agro industry corporate performance

According Saragih (2000) can be defined as agro-industrial activities that utilize primary agricultural products as raw material to be processed in such a way that new products both in-progress can be consumed. Agro-industry as one of the important subsystems in agribusiness systems has the potential to drive high growth due to a large market share in the national product. Agro-industries can also speed up the transformation of economic structure from agriculture to industry.

The corporate environmental performance assessment PROPER done based on the company's performance in meeting the requirements set out in the legislation in force and the corporate performance in the implementation of various activities related to environmental management activities that have become compliance requirements (beyond compliance). At this time, the performance of compliance assessment focused on the corporate assessment aspects of water pollution control, air pollution control and waste management B3 as well as various other duties related to AMDAL, while the assessment for aspects of beyond compliance was associated with an assessment of the efforts made by the company in the implementation of environmental management system, conservation and utilization of resources as well as corporate social responsibility activities including community development (Ministry of Environment, 2010).

2.2 Environmental Management System

Environmental management system according to ISO 14001 is defined as part of the overall management system which includes organizational structure, planning activities, responsibilities, implementation (practices), procedures, processes and resources for developing, implementing achieving, reviewing and maintaining the environmental policy or determination (Dalem, 2005).

United Nations Environment Programmed Industry and Environment defines Environmental Management System ".... is that part of the overall management system roommates includes the organizational structure, responsibilities, practices, procedures, and resources for developing, implementing, Achieving, reviewing and monitoring policy. The system Govern how business and industry manage environmental, health and safety compliance and risk. Guidance on the planning and implementation of environmental management systems is given in the ISO 14000 series.

2.3 Proactive Environmental Management

Proactive environmental management is a combination of five approaches: (Berry & Rondinelli, 1998)

a. Waste minimization and prevention. The effective environmental protection in desperate need of preventive activity against a useless activity. Pollution prevention is the use of materials or raw materials, production processes or practices that may reduce, or eliminate the causes of pollution minimization or pollution sources. The increasing demands of regulation and rising costs for pollution control be a driving factor for companies to find effective ways to prevent pollution.

b. Demand management. An approach to the prevention of pollution origin used in the industrial world. This concept is focused on understanding the needs and preferences of consumers in the use of the product and is based on three fundamental principles which leaves no waste products, sold in accordance with the number of consumers needs and make more efficient use of consumer products.

c. Environmental design. Integral part of the process of pollution prevention in the proactive environmental management. Companies are often faced with the inefficiencies in the design of products, such products do not recycle. Environmental design is intended to reduce costs reprocessing and return the product to

market more quickly and economically.

d. Product stewardship. Practices undertaken to reduce the risk to the environment through the problems in the design, manufacture, distribution, use or sale of products. In some countries laws have emerged that the company was responsible for re-claim, re-cycling and re-manufacturing products. By using life cycle analysis can be specified in the company's ways of reducing or eliminating waste in all stages, from raw materials, production, distribution and use by consumers.

e. Environmental costs. The concept of environmental costs will directly affect individuals, communities and environments that usually do not get the attention of the company. The concept of environmental costs to identify and quantify the performance of the environmental costs of a product, production process and a project taking into account the cost of four kinds, namely: direct costs such as labor costs, capital costs and cost of raw materials; indirect costs such as the cost of monitoring and reporting; costs uncertain as the cost of repairs and the cost does not seem like the cost of public relations and good will.

3. Method

This research is a survey on the management of agro-industrial companies in Central Java are enrolled in the Ministry of Environment PROPER-year period from 2009 to 2010. The population used in this study is a company leader in the agro-industrial sector in Central Java are registered in the Ministry of Environment PROPER program period 2009 - 2010 amounted to 248 employees and samples used were 130 employees were taken using stratified random sampling technique that is proportional sampling based on the level or levels of corporate management in Central Java Agro-industry sector that followed the Ministry of Environment PROPER program in each level of top management, middle management and line management. Each level is taken proportionately as much as 50% of each level so that the total target population of as many as 248 people who used the sample as many as 130 people.

Type of data used is primary data in the form of questionnaires distributed to a sample of respondent research. Data collection methods such as questionnaires, namely a list of questions submitted to the management company that handles the company's environmental management system. Variables and operational definitions in this study are:

a. Performance of the agro-industry company that is results that have been achieved by the company in carrying out an activity or policy in realizing the goals, objectives, mission and vision of the organization as stated in the company's strategic plan. Indicator used is the perception of the economic and environmental impact, customer satisfaction perceptions, perceptions of market positioning, employee involvement, effectiveness of environmental programs and develop a budget for the cost of the environment.

b. The company's commitment is management support for the implementation of enterprise environmental management system implemented so far. Indicators used are management commitment, implementing an environmental management system in compliance with the existing, acceptable products.

c. Orientation of the company is the company's goal to be achieved in implementing environmental management systems. Indicator used is the orientation of the document and environmental management.

d. Corporate culture is internalized values associated with the company's environmental management system. Indicator used is the culture process design, supplier demand culture, past experience in implementing environmental management systems.

e. Implementation costs are costs that have been incurred by the company in implementing environmental management systems. Indicator used is the implementation cost.

f. Proactive environmental management is the management company's efforts to make a serious effort implementing changes in processes and products in a more responsible and make the company the green. Indicators used waste minimization, pollution prevention, demand side, environmental design, product stewardship and environmental costs.

The analysis technique used in this study is testing a research instrument validity test using the one shot method and reliability testing using Cronbach alpha. Linearity testing using the test Langrange Multiplier and hypothesis testing using path analysis (path analysis), t test, F test and the coefficient of determination. The regression equation model path analysis in this study are:

$Y_1 = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + e_1$ ..... (1)

$Y_2 = \alpha + \beta_5X_1 + \beta_6X_2 + \beta_7X_3 + \beta_8X_4 + \beta_9Y_1 + e_2$……..... (2)

α = constant

$\beta_1 \ldots \beta_9$ = regression coefficient

Y_2 = agro industrial corporate performance

Y_1 = proactive environmental management

X_1 = Corporate commitment

X_2 = Corporate orientation

X_3 = Corporate culture

X_4 = Cost implementation
ε = *error*

4. Results and Discussion

4.1 Results

The test results by using a test instrument validity study showed that all the variables in the research status of valid and reliable, while testing the feasibility of the model shows that the linear model in status. The test results showed that path analysis:

$Y_1 = .271X_1 - .096\ X_2 + .334\ X_3 + .526\ X_4 + \epsilon_1$..... (1)
(.024) ** (.582) (.037)** (.000)***

$Y_2 = .244X_1 + .292\ X_2 + .343\ X_3 + .178\ X_4 + .429\ Y_1 + \epsilon_1$…… (2)
(.004) *** (.011) *** (.002) ** (.048) ** (.000) ***

Note: ** = significant at the 5% level
*** = significant at the 1% level

The results of direct, indirect and total effect can be seen in the following table:

Table 1. Result of Direct, Indirect and Total Effect

Description	Direct Effect	Indirect Effect	Total Effect
Corporate commitment – agroindustry corporate performance	$b_6 = .244$		$b_6 + (b_1 \times b_5) = .244 + .116 = .36$
Corporate commitment – proactive environmental management – agroindustry corporate performance		$b_1 \times b_5 = .271 \times .429 = .116$	
Corporate orientation – agroindustry corporate performance	$b_7 = .292$		$b_7 + (b_2 \times b_5) = .292 - .041 = .251$
Corporate orientation – proactive environmental management – agroindustry corporate performance		$b_2 \times b_5 = -.096 \times .429 = -.041$	
Corporate culture – agroindustry corporate performance	$b_8 = .343$		$b_8 + (b_3 \times b_5) = .343 + .143 = .486$
Corporate culture – proactive environmental management – agroindustry corporate performance		$b_3 \times b_5 = .334 \times .429 = .143$	
Cost implementation – agroindustry corporate performance	$b_9 = .178$		$b_9 + (b_4 \times b_5) = .178 + .226 = .404$
Cost implementation – proactive environmental management – agroindustry corporate performance	$b_6 = .244$		

Sources: data analysis, 2012

Results of direct and indirect effects indicate that:

The direct effect of the corporate commitment, corporate orientation, corporate culture and cost implementation toward the agroindustry corporate performance is more dominant than the influence corporate commitment toward the agroindustry corporate performance through proactive environmental management.

4.2 Discussion

4.2.1 The corporate commitment in the implementation of environmental management systems toward agro industry corporate performance

The corporate commitment can be seen from the policy environment in each company taking into account the characteristics, scale and environmental impacts of each activity. Environmental policy includes a commitment to continual improvement and pollution prevention to environmental regulations. The corporate environmental policy should be reflected in the determination of environmental objectives and targets. Management of the company should be able to harmonize environmental policies with environmental objectives, capable of intense supervision, management must be able to continuously reviewing and improving the environmental management system and the company should pay particular attention to the aspects that damage the environment.

Commitment to all its stakeholders that the corporate is required by way of a comprehensive plan by considering environmental aspects, regulatory compliance, corporate goals and objectives and environmental management program; implementation of environmental management systems that include aspects of structure and responsibility, training, awareness and competence, communication, document control and continuous operation; checking and correction, including the implementation of monitoring and measurement aspects, nonconformity,

corrective and preventive efforts as well as reviews by top management are expected to be done through the evaluation of the overall environmental management system to ensure the sustainability and effectiveness in achieving the agro-industry corporate performance.

4.2.2 Orientation of the corporate in the implementation of environmental management systems toward agro-industry corporate performance

The orientation of corporate in any organizational policies, objectives and targets based on the knowledge of the activity and its impact on the environment. In the course of cleaner production companies should focus more on efficient use of resources such as savings and increased productivity, decreased the amount of garbage, waste and emissions as well as the exploitation increasing productivity, decrease the amount of garbage, waste and emissions and a decrease in the use of exploitation, such as water efficiency in the production process of the sugar mills and the efficient use of fuel in boilers, power savings through the use of energy efficient lighting, use of electronic tools that save electricity and water, installing and using the toilet with a small stream, to support eco-labeling programs, procurement of goods and services based environment in the procurement of supplies and office equipment. It must be oriented to sustainability or not sporadic or temporary so expect every internal process and external to the organization always consider the environmental aspects of the organization ensure procedures are properly carried out to evaluate the environmental impact of each product or service.

Companies also need to increase the role and responsibilities of employees in environmental management systems through environmental education as an effort to change behavior and attitudes conducted by all shareholders of the company which aims to improve the knowledge, skills and awareness of environmental values and issues of environmental problems, which in turn can move all its stakeholders to play an active role in the preservation and safety of the environment for the benefit of present and future. Environmental education is the key to any effort to build awareness and awareness about the importance of environmental preservation. Environmental education activities can not be performed in a nutshell, but it must be sustainable and holistic. Activities that can be done and developed, among others, the organization of education and training activities for the family environmental leadership, staff or employees of the company associated with the activities of saving water and electricity in the home, household waste management and reforestation, support green school, green campus or green office in four main sectors, namely saving paper, saving water and electricity, sewage and waste management or reforestation, education and training activities organized environment among youth, PKK (Family Welfare and Empowerment), community of merchants, farmers, fishermen and other community and support curriculum development and environmental infrastructure facilities of environmental education early childhood education through college and to support environmental activities in a variety of media both print, television, radio and other alternative media

4.2.3 Corporate culture in the implementation of environmental management systems toward agro-industry corporate performance

The results of this study indicate that the existing agro corporate culture over the years need to be improved, especially in changing the behavior of employees to focus on improving high concern on the environment, a strong motivation to implement environmental management systems employees. Efforts are made each company is expected to be more creative and innovative as the use of ethanol from sugarcane as an alternative raw material sources for energy and water use through the methane generator reused in the production process at the plant cane so that the company is expected to reduce the intensity of the material, reducing the energy intensity, reduce the spread of toxic substances, improving the recycling process, maximizing the use of renewable materials, increase the lifetime of the product and increase the intensity of services.

4.2.4 The implementation of costs in the implementation of environmental management systems toward agro-industry corporate performance

Implementation cost is very important in order to provide the certainty of each company to implement environmental protection and management in order to prevent and mitigate the impact of environmental degradation as a result of their business activities. Implementation costs can be done in the form of emergency funds and regular funds. Emergency response fund is a budget prepared for the prevention of pollution or environmental damage that can not be predicted time of occurrence and nature of emergency. Emergency response activities are a serious threat to humans and the environment, greater impact and wider if not promptly discontinued and or damaging pollution and greater losses to the environment if not stopped immediately pollution or damaging. Regular fund budget is prepared in a planned manner to prevent pollution or environmental damage. Source of emergency funding can be sourced from companies such as insurance, term deposits, bank guarantees and reserve funds announced in the financial statements for public companies, while the regular funding of the association may be contributory or parent company (corporation).

It is necessary for internalization of environment by incorporating environmental costs can be pollution and / or damage to the environment in the calculation of production costs or expenses of a business or activity in the policy. As long as there are still companies who see the environmental costs are still considered external costs to

be borne by the public because of the nature of public goods. Environmental costs have not been seen as necessary parts counting internalized into the costs and benefits of a business activity. To anticipate business activity that often has a negative impact on the environment which include land use disrupt, disturb the ecology, land eroded and media pollution of land, water and air, then the company can allocate funds put up by an organization or activity for restoration of environmental quality life is damaged because its activities. The findings in this study that not all companies have the funds or allocate funds to guarantee an adequate environmental restoration. Implementation costs in the implementation of environmental management systems have a positive impact on the performance of agro-industry companies. Implementation cost is very important in order to provide the certainty of each company to implement environmental protection and management in order to prevent and mitigate the impact of environmental degradation as a result of their business activities.

4.2.5 Proactive environmental management in the implementation of environmental management systems toward agro-industry corporate performance

Proactive environmental management related to the increase in the company's efforts to minimize waste as well as an attempt to improve the efficiency of particularly efficient use of raw materials that all materials can be utilized and enhanced value added.

Implementation of the company is to reduce or eliminate materials that contain hazardous materials such as heavy metals, dyes and solvents; using quality raw material and pure to avoid contamination in the production process, production scheduling can help prevent the waste of energy, materials and water , develop care management to reduce losses due to damage to equipment and machinery; residual process water reuse, water coolers and other materials inside or outside the system of production, taking back waste material as a waste of energy and creates usefulness as another product that can be used by the outside. Proactive environmental management of the company is expected to be used to develop the agro-environmental areas giving priority to:

4.2.5.1 Integrating the company into agro ecosystems using closed circular approach through reuse and recycling, maximizing material usage and energy efficiency, minimizing waste generation and use of all waste as potential products and markets for waste.

4.2.5.2 Balancing the input and output to the capacity of natural ecosystems that include reducing the environmental burden caused by the release of energy and material into the environment, design the interface with the industry characteristics and sensitivity (sensitivity) of nature.

4.2.5.3 re-engineering of energy consumption and materials for industrial purposes that include redesigning processes to reduce energy usage, changing technology and product design to reduce the use of materials that spread less likely to re-do collection (recapture) and making products using materials as little as possible (dematerialization).

4.2.5.4 Adjustment of industrial policy with a long-term perspective of the evolution of the industrial system.

4.2.5.5 Designing industrial system with concern the social and economic needs of local communities through optimization of local business opportunities and development of job opportunities and minimize the impact of industrial development on the regional system through investments in community programs.

5. Conclusion

5.1 Environmental policy and commitment of top management is very important in the implementation of environmental conservation through better management of the organization. Activities required succeeding in environmental conservation education and training including environmental management systems, internal and external communications throughout shareholders, operational oversight, responsibility and behavior of each individual to raise awareness of the environment.

5.2 The increasing orientation of the company in the implementation of environmental management systems can contribute positively to the performance of the agro-industry companies. Environmental management system can be used to enhance the company's competitiveness in the face of a competitive market, performing continuous improvement in environmental management aspects of the process, are able to identify environmental issues effectively and improve the efficiency of resource use. For export-oriented companies that are not able to encourage the creation of local market conditions and good environmental management systems, while export-oriented company focused on the identification and management of environmental issues as well as the process for the final product improvement.

5.3 Implementation of environmental management systems can be used as an active tool to promote a comprehensive organizational change towards sustainable development and value creation in an effort to improve the performance of the agro-industrial companies, in addition to the proactive management of the environment if it is not offset by the improvement of the behavior of each employee to further raise awareness of the environment to a high cause the performance of the agro-industrial company is not running optimally.

5.4 Involvement of agro-enterprises in realizing the ideals of sustainable development is very important. Agro industrial companies prosecuted as a locomotive that brought all elements of the public welfare

development in current and future by promoting development that ensures the preservation of the environment through the collective work in an area integrated with the natural and social systems in an integrated region.

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